PATENT Serial No. 09/526,379

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REMARKS

A. Status of the Application

The Examiner has rejected claims 1-41. By this amendment, Applicants have canceled claims 12 and 34 and amended claims 1-3, 9-11, 21, 23-25, 31, 33, and 35. Moreover, Applicants have added new claims 42-44 which incorporate subject matter from original claims 1 and 21, thus no new matter has been entered. Accordingly, claims 1-11, 13-33 and 35-44 are now pending in this application.

B. Objections under 37 C.F.R. 1.75

In paragraph 5 of the Office Action, the Examiner objected to claims 12 and 34 as being substantial duplicates of claims 11 and 33[4], respectively. Applicants have cancelled claims 12 and 34 thus obviating the Examiner's objection.

C. Rejections under 35 U.S.C. 112

The Examiner rejected claims 9-12, 31-35, and 37 under 35 U.S.C. §112, second paragraph, as being indefinite. The Examiner states that the claims have insufficient antecedent basis. Applicants have amended the claims to clarify. Applicants submit this amendment overcomes this rejection and request a withdrawal of all of the rejections made under 35 U.S.C. §112.

E. Rejections under 35 U.S.C. 103 (a)

The Examiner rejected claims 1-3, 16-22, 24, 25, and 38-41 under 35 U.S.C. §103(a) as being unpatentable over Barney et al. (US 6,203,535) in view of Galante (US 5,272,210), claim 23 under 35 U.S.C. §103(a) in further view of Occhiello et al. (EPO 0423499A2), claims 1,2, 4-8, 13-24, 26-30, and 36-41 under 35 U.S.C. §103(a) as unpatentable over Barney in view of Wilhoit et al. (US 5,928,740), and claims 9-12 and 31-35 under 35 U.S.C. §103(a) in further view of Sudo (EPO 0556034 A1).

1. Barney et al. In View of Galante Does Not Render the Present Invention Obvious.

Claims 1-3, 16-22, 24, 25, and 38-41 stand rejected under 35 U.S.C. §103(a) as unpatentable in light of Barney et al. in view of Galante. Applicants respectfully traverse these rejections, insofar as they apply to the claims as amended, and request a withdrawal of the same.

Barney discloses fabricating medical utensils including medical containers from particular copolymers including EVA. As admitted by the Examiner, Barney does not disclose or suggest any of the polymeric blends of the present invention. (OA at page 4)

Galante discloses two-component polymeric blends which include propylene and ethylene copolymers with ethylene-alkyl acrylate copolymers. The blends of Galante include 60-80% of ethylene-alkyl acrylate, with 20-40% propylene-ethylene copolymers, containing from 1 to 7% ethylene. The only propylene-ethylene copolymers disclosed by Galante are random copolymers. (Col. 2, lines 39-43). Moreover, Galante specifically instructs not to use a propylene ethylene block copolymer and propylene homopolymers. (Col. 2, lines 42-43; Col. 8, lines 22-22).

Independent claims 1 and 21, as amended, are directed to a flowable materials container containing at least two components. The first component is selected from the group consisting of: (1) ethylene and α -olefin copolymers having a density of less than about 0.915 g/cc, (2) ethylene copolymerized with lower alkyl substituted alkyl acrylates and (3) ionomers. The first component is present in an amount from about 99% to about 55% by weight of the blend. The second component is selected from the group consisting of: (1) propylene containing polymers. (2) polybutene polymers, (3) polymethylpentene polymers, (4) cyclic olefin containing polymers and (5) bridged polycyclic hydrocarbon containing polymers. The second component is present in an amount by weight from about 45% to about 1%. Claim 1 also recites a list of material properties of a film made from the recited blends, including the modulas of elasticity. Claim 21 further recites a film made from these blends is subjected to electron beam radiation. In addition, new claims 42-44 recite that the first component is an ethylene copolymerized with lower alkyl substituted alkyl acrylates being present in an amount from about 99% to about 55% by weight of the blend and the second component is selected from the group consisting of: (1) homopolymers of polypropylene, (2) propylene containing block copolymers, (3) block terpolymers of propylene with one or more comonomers selected from α -olefins having from

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about 2 to about 17 carbons, (4) polybutene polymers, (5) polymethylpentene polymers, (6) cyclic olefin containing polymers and (7) bridged polycyclic hydrocarbon containing polymers in an amount by weight of the blend from about 45% to about 1%.

The polymeric blends of the present invention are not disclosed or even remotely suggested by Galante. As discussed above, the blends disclosed in Galante include propylene-ethylene random copolymers in combination with ethylene alkyl acrylates. The invention as now claimed clearly does not include this combination of polymers. The propylene-ethylene blends of the present invention are block copolymers. Therefore, not only does Galante fail to teach the blends of the present invention, it actually teaches away from them since Galante specifically instructs to use only propylene-ethylene random copolymers and not to use homopolymers of polypropylene. Moreover, as admitted by the Examiner, Barney et al. fails to teach the polymeric blends of the present invention. Therefore, even if the blends of Galante were substituted for the blends of Barney et al., it would not render the present invention obvious.

Accordingly, the Examiner has failed to present a prima facie case of obviousness, and Applicants respectfully request a withdrawal of this rejection of the claims on the basis of these references.

2. <u>Barney et al. In View of Galante and Further In View of Occhiello et al. Do Not Render Claim 23 Obvious.</u>

Claim 23 stands rejected under 35 U.S.C. §103(a) as unpatentable in light of Barney et al. in view of Galante and further in view of Occhiello et al. Because Occhiello fails to remedy the deficiencies of the combination of Barney et al. and Galante, the Examiner again has failed to present a prima facie case of obviousness for the reasons set forth above regarding this combination. Accordingly, Applicants submit that claim 23 is patentably distinguishable over this combination of references.

3. Barney et al. In View of Wilhoit et al. Do Not Render Claims 1,2, 4-8, 13-24, 26-30, and 36-41 Obvious.

Claims 1, 2, 4-8, 13-24, 26-30, and 36-41 stand rejected under 35 U.S.C. §103(a) as unpatentable in light of Barney et al. in view of Wilhoit et al. Again, because Wilhoit et al. does not disclose the polymeric blends of the present invention it fails to remedy the deficiencies of

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the Barney et al., thus the Examiner has failed to present a prima facie case of obviousness for the reasons set forth above. Accordingly, Applicants submit that the claims are patentably distinguishable over this combination of references.

4. Barney et al. In View of Wilhoit In Further View of Sudo Do Not Render Claims 1, 2, 4-8, 13-24, 36-30, and 36-41 Obvious.

Claims 1,2, 4-8, 13-24, 36-30, and 36-41 stand rejected under 35 U.S.C. §103(a) as unpatentable in light of Barney et al. in view of Wilhoit and further in view of Sudo. Because Sudo fails to remedy the deficiencies of the combination of Barney et al. and Wilhoit, the Examiner again has failed to present a prima facie case of obviousness for the reasons set forth above regarding this combination. Accordingly, Applicants submit that the claims are patentably distinguishable over this combination of references.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all pending claims are in a condition for allowance and respectfully requests a notice of the same.

Respectfully submitted,

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Version with Markings to Show Changes Made

(Twice amended) A flowable materials container comprising:

a first sidewall and a second sidewall sealed together along a peripheral seam to define a fluid chamber, at least one of the first and second sidewall is a film having at least one layer of a blend of a first component selected from the group consisting of: (1) ethylene and α -olefin copolymers having a density of less than about 0.915 g/cc, (2) [ethylene copolymerized with lower alkyl acrylates, (3)] ethylene copolymerized with lower alkyl substituted alkyl acrylates and [(4)] (3) ionomers, the first component being present in an amount from about 99% to about 55% by weight of the blend, a second component in an amount by weight of the blend from about 45% to about 1% and is selected from the group consisting of: (1) propylene containing polymers, (2) polybutene polymers, (3) polymethylpentene polymers, (4) cyclic olefin containing polymers and (5) bridged polycyclic hydrocarbon containing polymers; and

the film has a modulus of elasticity when measured in accordance with ASTM D882 of less than about 60,000 psi, an internal haze when measured in accordance with ASTM D1003 of less than about 25%, an internal adhesion ranking of greater than about 2, a sample creep at 120°C under 27 psi loading of less than or equal to 150% for a film having a thickness of from about 5 mils to about 15 mils, and the film can be heat sealed into a container having seals wherein the seals remain intact when the container is autoclaved at 121°C for one hour.

- 2. (Twice amended) The container of claim 1 wherein the second component is a propylene containing polymer and is selected from the group consisting of homopolymers of polypropylene, and [random and] block copolymers and [random and] block terpolymers of propylene with one or more comonomers selected from α -olefins having from about 2 to about 17 carbons.
- 3. (Amended) The container of claim 2 wherein the second component is a propylene and ethylene <u>block</u> copolymer having an ethylene content of from 1-6% by weight of the copolymer.
- 9. (Twice amended) The container of claim 1 wherein the second component is a cyclic olefin containing polymer having from 5 to about 10 carbons in the ring.

- 10. (Amended) The container of claim 9 wherein the cyclic olefin <u>containing</u> <u>polymer</u> is selected from the group consisting of substituted and unsubstituted cyclopentene, cyclopentadiene, cyclohexene, cyclohexene, cyclohexene, cyclohexene, cyclohexene, and cyclooctadiene.
- 11. (Twice amended) The container of claim 1 wherein the second component is a bridged polycyclic hydrocarbon containing polymer having at least 7 carbons.
 - 12. (Cancelled)
 - 21. (Twice amended) A flowable materials container comprising:

a first sidewall and a second sidewall sealed together along a peripheral seam to define a fluid chamber, the sidewall being of a film having at least one layer of a blend of a first component selected from the group consisting of: (1) ethylene and α -olefin copolymers having a density of less than about 0.915 g/cc, (2) [ethylene copolymerized with lower alkyl acrylates, (3)] ethylene copolymerized with lower alkyl substituted alkyl acrylates and [(4)] (3) ionomers, the first component being present in an amount from about 99% to about 55% by weight of the blend;

a second component in an amount by weight of the blend from about 45% to about 1% and is selected from the group consisting of: (1) propylene containing polymers, (2) polybutene polymers, (3) polymethylpentene polymers, (4) cyclic olefin containing polymers and (5) bridged polycyclic hydrocarbon containing polymers; and,

wherein the film is subjected to electron beam radiation having an energy from 150 Kev to 10Kev to provide a dosage amount from about 20 kGy to about 200 kGy.

- 23. (Amended) The container of claim 21 wherein the blend is exposed to an oxygen partial pressure less than ambient conditions when exposed to the electron beam radiation.
- 24. (Twice amended) The container of claim 21 wherein the second component is a propylene containing polymer and is selected from the group consisting of homopolymers of polypropylene, and [random and] block copolymers and [random and] block terpolymers of propylene with one or more comonomers selected from α -olefins having from about 2 to about 17 carbons.

- 25. (Amended) The container of claim 21 wherein the second component is a propylene and ethylene <u>block</u> copolymer having an ethylene content of from 1-6% by weight of the copolymer.
- 31. (Twice amended) The container of claim 21 wherein the second component is a cyclic olefin container polymer having from 5 to about 10 carbons in the ring.
- 33. (Twice amended) The container of claim 21 wherein the second component is a bridged polycyclic hydrocarbon containing polymer having at least 7 carbons.
 - 34. (Cancelled)
- 35. (Twice amended) The container of claim 21 wherein the first component is an ethylene and α -olefin copolymer having from 3 to 17 carbons.

Please add new claims 42-44.

42. (Added) A flowable materials container comprising:

a first sidewall and a second sidewall sealed together along a peripheral seam to define a fluid chamber, at least one of the first and second sidewall is a film having at least one layer of a blend of a first component of ethylene copolymerized with lower alkyl substituted alkyl acrylates being present in an amount from about 99% to about 55% by weight of the blend, a second component in an amount by weight of the blend from about 45% to about 1% and is selected from the group consisting of: (1) homopolymers of polypropylene, (2) propylene containing block copolymers, (3) block terpolymers of propylene with one or more comonomers selected from α-olefins having from about 2 to about 17 carbons, (4) polybutene polymers, (5) polymethylpentene polymers, (6) cyclic olefin containing polymers and (7) bridged polycyclic hydrocarbon containing polymers; and,

the film has a modulus of elasticity when measured in accordance with ASTM D882 of less than about 60,000 psi, an internal haze when measured in accordance with ASTM D1003 of less than about 25%, an internal adhesion ranking of greater than about 2, a sample creep at 120°C under 27 psi loading of less than or equal to 150% for a film having a thickness of from about 5 mils to about 15 mils, and the film can be heat sealed into a container having seals wherein the seals remain intact when the container is autoclaved at 121°C for one hour.

43. (Added) A flowable materials container comprising:

a first sidewall and a second sidewall sealed together along a peripheral seam to define a fluid chamber, at least one of the first and second sidewall is a film having at least one layer of a blend of a first component of ethylene copolymerized with lower alkyl substituted alkyl acrylates being present in an amount from about 99% to about 55% by weight of the blend, a second component in an amount by weight of the blend from about 45% to about 1% and is selected from the group consisting of: (1) homepolymers of polypropylene, (2) propylene containing block copolymers, (3) block terpolymers of propylene with one or more comonomers selected from α -olefins having from about 2 to about 17 carbons, (4) polybutene polymers, (5) polymethylpentene polymers, (6) cyclic olefin containing polymers and (7) bridged polycyclic hydrocarbon containing polymers; and,

wherein the film is subjected to electron beam radiation having an energy from 150 Kev to 10Kev to provide a dosage amount from about 20 kGy to about 200 kGy.

44. (Added) The container of claim 43 wherein the film has a modulus of elasticity when measured in accordance with ASTM D882 of less than about 60,000 psi, an internal haze when measured in accordance with ASTM D1003 of less than about 25%, an internal adhesion ranking of greater that about 2, a sample creep at 120°C under 27 psi loading of less than or equal to 150% for a film having a thickness of from about 5 mils to about 15 mils, and the film can be heat sealed into a container having seals wherein the seals remain intact when the container is autoclaved at 121°C for one hour.